(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 1 July 2004 (01.07.2004)

PCT

(10) International Publication Number WO 2004/055054 A1

(51) International Patent Classification⁷: C07K 14/705, G01N 33/68

(21) International Application Number:

PCT/EP2003/014403

(22) International Filing Date:

17 December 2003 (17.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/434,540

18 December 2002 (18.12.2002) U

....,

- (71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (71) Applicant (for all designated States except US): THE SCRIPPS RESEARCH INSTITUTE [US/US]; 10550 N. Torrey Pines Road, La Jolla, CA 92037 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BEVAN, Stuart

[GB/GB]; 3 Dakfield road, London NI 4UT (GB). PAT-APOUTIAN, Ardem [US/US]; 4330 North Talmadge Drive, San Diego, CA 92116 (US). STORY, Gina, M. [US/US]; 1208 Huntington Road, San Marcos, CA 92069 (US).

- (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW.
- (84) Designated States (regional): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, E, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANKTM1, A COLD-ACTIVATED TRP-LIKE CHANNEL EXPRESSED IN NOCICEPTIVE NEURONS

(57) Abstract: The methods and compositions of the invention are based on a method for measuring nociceptive responses in vertebrates, including humans and other mammals utilizing a newly discovered thermoreceptor belonging to the Transient Receptor Potential (TRP) family of non-selective cation channels that participates in thermosensation and pain. This receptor, designated ANKTMI, is associated with nociceptive pain, such as hyperalgesia. Accordingly, the invention provides isolated polypeptides and polynucleotides associated with nociception as well as methods for identifying or screening agents that modulate nociception.



